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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,508	04/15/2004	Edward Hin Pong Lee	SJO920020018US3	8556

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EXAMINER

OMETZ, DAVID LOUIS

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,508

Applicant(s)

LEE, EDWARD HIN PONG

Examiner

David L. Ometz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 and 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-18 and 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The disclosure is objected to because of the following informalities: the continuing data on the top of page 1 should be updated to include the patented status of parent case 10/156633, i.e. U.S. Patent No. 6848166.

Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 9, 12, 13, 14, 17, 18, 26-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Han et al (US Pat 6504677). Han et al shows a magnetic head for use in a disk drive (i.e. disk medium, spindle motor, slider) in figure 2, comprising: a first pole piece 40; a second pole piece which has a front pole tip 44 formed at the ABS 30 and a back gap pedestal 52; a gap layer 42 which separates the first pole piece and the second pole piece at an air bearing surface (ABS, 30); a magnetic front connecting pedestal 46 at least partially formed over the front pole tip 44 and having a front edge recessed behind the ABS by a distance "14" which is between 0.5 and 2 microns (cls. 26 and 30, see col. 3, line 40 of Han); a magnetic back gap connecting pedestal 50 at least partially formed over the back gap pedestal 52; an insulator material (alumina) 57 formed in between the front and the back connecting pedestals 46/50; and a yoke 48 formed over the front and the back gap connecting pedestals 46/50 for connecting the

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front pole tip 44 and the back gap pedestal 52 wherein the yoke 48 has a front edge that is recessed from the ABS by distance "15" (see Han et al, all of col. 3).

With regard to the use of electroplated structures in claims 12 and 17, a "product by process" claim is directed to the product per se, no matter how actually made, see **In re Hirao**, 190 USPQ 15 at 17 (footnote 3, CCPA, 5/27/76); **In re Brown**, 173 USPQ 685 (CCPA 5/18/72); **In re Luck**, 177 USPQ 523 (CCPA, 4/26/73); **In re Fessmann**, 180 USPQ 324 (CCPA, 1/10/74); **In re Thorpe**, 227 USPQ 964 (CAFC, 11/21/85). The patentability of the final product in a "product by process" claim must be determined by the product itself and not the actual process and an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Therefore, the use of electroplating has not been given patentable weight.

With regard to claims 28, 29, 32, and 33, Han et al shows an insulating material 54/56 formed between the ABS 30 and the front connecting pedestal 46 wherein the insulating material 54/56 would inherently prevent damage to the front pole tip.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al in view of Herrera (US Pat 5923506). Han et al shows a magnetic head with a yoke 48 as noted above. However, Han et al does not show wherein the yoke 48 comprises a highly resistive magnetic material. Herrera discloses a thin film magnetic head that uses CoZrTa as the material

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for the yokes (poles) which is a highly resistive material (see col. 1, lines 34-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the magnetic material (NiFe) in the pole of Han et al with CoZrTa as taught by Herrera as doing this would enable high frequency writing of data, thereby increasing the data storage capability of the drive as taught by Herrera (see col. 1, lines 34-45).

6. Claims 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al in view of Hossain et al (US Pat 6296955). Han et al shows a magnetic head with a yoke 48 as noted above. However, Han et al does not show wherein the yoke 48 comprises a laminated structure of alternating magnetic and dielectric layers. Hossain et al discloses a thin film magnetic head that uses a lamination of dielectric material (alumina) with NiFe for use as the yokes (poles) in a magnetic head (see col. 4, lines 64-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the magnetic material (single layer of NiFe) in the pole of Han et al with a laminated design (NiFe/alumina) as taught by Hossain et al as doing this would enable high frequency writing of data by increasing the permeability and resistance of the yoke, thereby increasing the data storage capability of the drive.

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection to Han et al.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Ometz whose telephone number is (571) 272-7593.

The examiner can normally be reached on M-Th, 6:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David L. Ometz
Primary Examiner
Art Unit 2653

DLO
4/5/05